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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	09/757,015	AHMED, SAJID
	Examiner	Art Unit	
	Nathan H. Brown, Jr.	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *(3)* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>22 May 2007</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *6-10,12-18,21-25,27 and 28* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *6-9,12-18 and 21-25* is/are rejected.

7)☒ Claim(s) *27 and 28* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

Examiner's Detailed Office Action

1. This Office Action is responsive to the communication for application 09/757,015,

filed May 22, 2007.

2. Claims 6-28 are pending. Claims 11, 20, and 26 are cancelled. Claims 6, 7, 9, 10, 12,

15, 16, 18, 19, 21, 24, 25, are currently amended. Claims 8, 13, 14, 17, 22, and 23 are

previously presented. Claims 27 and 28 are new.

3. After the previous office action, claims 6-26 stood rejected.

4. Examiner withdraws rejection of claims 6-10, 12-14 and 21-25, under 35 U.S.C. 101

in response to applicants' amendments.

Claim Objections

5. Claim 12 is objected to because of the following informalities:

"product of the at least one response values" should be -- product of the at least one

response value--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 10 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 10 and 19 recite "using algorithm 42", however, from the Specification, it is unclear what algorithm 42 is and how algorithm 42 is defined with respect to ELICIT™. Applicants should incorporate algorithm 42 into the respective claims.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 6-9, 12-14, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by *Altschuler et al. `122* (USPN 4,872,122).

Regarding claim 6. *Altschuler et al. '122* teach a computer implemented method for

providing a <u>medical</u> <u>diagnosis to a</u> user (*see* col. 7, lines 3-21, *Examiner interprets "the*

expert's response" to be a medical diagnosis and in the case "where the system will be

able to decide a presented case without full information" it will present "the expert's

response" to a user (e.g., a patient).), comprising:

> (a) configuring, in one or a plurality of electronic databases (*see* col. 4, lines 3-
>
> 8, E*xaminer interprets "statistical base" one or a plurality of electronic*
>
> *databases.*) to be stored in a storage device of a computer (*see* col. 2, lines 57), a
>
> set of alternative <u>medical</u> diagnoses (*see* Abstract, *Examiner interprets a "a set*
>
> *of output actions for combinatory situations such as medical diagnosis defined*
>
> *by a plurality of input parameters" to be alternative medical diagnoses.*) each
>
> indicating a medical or disease condition (*Examiner asserts that a medical*
>
> *diagnosis is made to address a medical or disease condition, thus indication of*
>
> *the medical or disease condition is inherent in a medical diagnosis to*
>
> *practitioners of ordinary skill in the medical arts.*), a query set comprising at
>
> least one query (*see* Abstract, *Examiner interprets "A plurality of structures*
>
> *may be established, one for each individual expert, allowing interrogation of*
>
> *any or all of the decision making structures..." to be a query set comprising at*
>
> *least one query ("interrogation").*), and a set of primary bias values (*see*
>
> Abstract, "Random values of the input parameters are generated, which includes
>
> biasing the random values by a function of a preceding response.", *Examiner*
>
> *interprets the "function of a preceding response" to map a preceeding response*
>
> *to a bias value and the primary bias values to be those included in random*

"values of the input parameters".), wherein the set of primary bias values

comprises, with respect to each query, a corresponding set of alternative medical

diagnosis-specific primary bias values each directly associating the particular

query with each respective alternative diagnosis (*see* Abstract and col. 3, lines

51-55 and col. 4, lines 42-54, *Examiner interprets the iterative use of the*

"function of a preceding response" to produce a set of biased random values

for each response for each "subsequent question" (query) in each branch of the

tree created by the simulator, thus associating a particular query with each

respective alternative "response" (medical diagnosis).), and each bias value

directly reflecting at least one human expert's prior conception of the degree of

predictive value of the query for the particular alternative medical diagnosis

relative to others (*see* col. 3, line 51 to col. 4, line 54, *Examiner interprets "The*

chi square test is used to determine whether a given variable is significant in the

expert's choice of responses to the questions..." to mean that a given variable

including a bias value reflects, by its significance, at least one human expert's

prior conception of the degree of predictive value of the query for the particular

alternative medical diagnosis relative to others.);

(b) inputting a response to the at least one query into the computer to provide for

at least one respective response value (*see* col. 7, lines 62-63, *Examiner*

interprets "display of block 52 to be a software subsystem.); and

(c) ranking, using a software program stored on the storage device that is

operative with a processor of the computer to receive and process the response,

the alternative medical diagnoses according to relative likelihood, based at least

in part on the product of the at least one response values and to the respective

medical diagnosis-specific primary bias values to provide a diagnosis

comprising a ranked set of alternative medical diagnoses (*see* col. 10, lines 3-

12, *Examiner interprets "recommendations" to be alternative medical*

diagnoses. Examiner interprets "action probabilities...arranged in the order of

descending probabilities" to be a ranking for the set of alternative medical

diagnoses according to relative likelihood based, at least in part, on the set of

primary bias values (input parameters).); and

(d) providing the medical diagnosis, or a portion thereof, to the user (*see* col. 10,

lies 3-12, *Examiner interprets "the modal path is displayed first" to mean*

providing the medical diagnosis, or a portion thereof, to a user.).

Regarding claim 12. *Altschuler et al. `122* teach a computer apparatus (*see* col. 2, line

57) for providing a medical diagnosis to a user (*see* col. 7, lines 3-21, *Examiner*

interprets "the expert's response" to be a diagnosis and in the case "where the system

will be

able to decide a presented case without full information" it will present "the

expert's response" to a user (e.g., a patient).), comprising:

(a) a computer having a processor and at least one storage device connected

thereto (*see* col., line 57, *Examiner interprets a "VAX 780" to be a computer*

having a processor and at least one storage device connected thereto.);

(b) a database of alternatives, comprising a stored set of <u>alternative medical</u>

<u>diagnoses</u> (*see* col. 9, lines 5-22, *Examiner interprets "database for public use"*

to be a database of alternatives (user cases), comprising a stored set of

alternatives (expert recommendations for a particular case or medical

diagnoses).);

(c) a database of queries, comprising a stored set of at least one query (*see* col.

5, lines 1-14, *Examiner interprets "Each of these experts would...build his own*

tree of analysis." to assert a set of analysis "trees". Examiner interprets the set

of analysis trees to be a database of queries, comprising a stored set of at least

one query.);

(d) a primary bias value database, comprising a stored set of primary bias

values (*see* col. 5, lines 55-62, *Examiner notes that "a case" contains "input*

parameters" which are primary biased values (see rejection of claim 6, above),

therefore the set of user cases is a primary bias value database.), wherein each

primary bias value directly associates a particular query with a particular

alternative <u>medical diagnosis</u> of the set of alternative medical diagnoses (*see*

col. 5, lines 53-62, *Examiner interprets "interrogation or questioning of the*

system by the user" to use "a case" having a set of "experts whose system has

been made public" (see above) to associate queries in the expert analysis trees

with "t he preference of the expert...affected by variations of one of the input

parameters" (which are primary biased values associated with alternative

medical diagnoses).), and reflects at least one human expert's prior conception

of the degree of predictive value of the query for the particular alternative

relative to others (*see* above, *Examiner interprets "expert" to be a human expert.*); and

(e) a stored software program operative with the processor to receive and process a user's response to the query (*see* col. 2, lines 54-57, *Examiner interprets the "system ... written in FORTRAN 77 for a VAX 780" to be a stored software program operative with the processor to receive and process a user's response to the query.*), to provide for a response value to the at least one query (*see* col. 5, lines 53-62, *Examiner interprets "significant parameters" to be response values to at least one query.*) and to rank the alternative medical diagnoses according to relative likelihood based, at least in part, on the product of the at leas one response values and the respective medical diagnosis-specific primary bias values (*see* col. 10, lines 3-12, *Examiner interprets "recommendations" to be alternative diagnoses. Examiner interprets "action probabilities...arranged in the order of descending probabilities" to be a ranking for the set of alternative medical diagnoses according to relative likelihood based, at least in part, on the set of primary bias values (input parameters).*).

Regarding claim 7. (Currently amended) *Altschuler et al.* `122 teach the method of claim 6, wherein ranking the set of alternative medical diagnoses further comprises querying the one or more electronic databases to generate at least one secondary bias value that is based on the corresponding primary bias value and the response to the query (*see* Abstract and col. 3, lines 51-55 and col. 4, lines 42-54, *Examiner interprets the iterative use of the "function of a preceding response" to produce a set of biased*

random values for each response for each "subsequent question" (query) in each

branch of the tree created by the simulator to be querying at least one database (see

col. 4, lines 3-8, *"statistical base") to generate at least one secondary bias value that is*

based on the corresponding primary bias value and the response to the query.),

wherein each secondary bias value is associated with a particular alternative medical

diagnosis of the set of alternative medical diagnoses (*see* above, *Examiner interprets*

"each branch of the tree created by the simulator" to be a set of alternative medical

diagnoses for a particular alternative medical diagnosis.), and reflects the at least one

expert's prior conception of the degree of predictive value of the query and response for

the particular alternative medical diagnosis relative to others (*see* col. 3, lines 51-55 and

col. 4, lines 42-54, *Examiner interprets "The chi square test is used to determine*

whether a given variable is significant in the expert's choice of responses to the

questions..." to mean that a given variable including a bias value reflects, by its

significance, the expert's prior conception of the degree of predictive value of the query

and response for the particular alternative diagnosis.), and wherein ranking is based, at

least in part, on the secondary bias values, or at least in part on a combination of the

primary and secondary bias values (*see* col. 10, lines 3-12, *Examiner interprets*

"recommendations" to be alternative diagnoses and "the modal path" to be path

through the decision tree with the highest relative likelihood, based at least in part on

the set of primary bias values (i.e., input parameters).).

Regarding claim 8. (Previously presented) *Altschuler et al. `122* teach the

method of claim 7, wherein generating the secondary bias values involves increasing,

decreasing or conserving the corresponding primary bias values based on the response

to the query (*see* col. 3, lines 55-56, *Examiner interprets "the system avoids*

presenting variable values that are inconsistent with the answers previously given" to

mean generating the secondary bias values involves conserving the corresponding

primary bias values.).

Regarding claim 9. (Currently amended) *Altschuler et al. `122* teach the

method of claim 7, wherein the query set comprises a plurality of queries, and

wherein ranking the alternatives alternative medical diagnoses involves summing and

averaging of at least one of primary and secondary bias values (*see* col. 11, 6-49,

Examiner interprets each leaf node of "the decision tree" to be an "action decision"

(i.e., a medical diagnosis) and "variables (i,j)" to be one of primary or secondary

bias values.).

Regarding claim 13. (Previously presented) *Altschuler et al. `122* teach the apparatus of

claim 12, further comprising a user database, comprising user information (*see* Fig. 4,

item 94, col. 8, lines 50-54, *Examiner interprets "user file" to be a user database.*),

wherein the program is operative with the processor to store, access and update user

information when new user information is received (*col.* 8, lines 19-27, *Examiner*

interprets "adding personnel and privilege statuses to the system as well as other

system maintenance functions" to comprise storing, accessing, and updating user

information when new user information is received.).

Regarding claim 14. (Previously presented) *Altschuler et al.* `122 teach the apparatus of

claim 13, wherein the program is further operative with the processor to track the user

information (*col.* 8, lines 19-27, *Examiner interprets "other system maintenance*

functions" to comprise tracking the user information.).

Regarding claim 24. (Currently amended) *Altschuler et al.* `122 teach the apparatus of

claim 12, wherein ranking the set of alternative medical diagnoses alternatives further-

comprises querying at least one database to generate at least one secondary bias value

that is based on the corresponding primary bias value and the response to the query

(*see* Abstract and col. 3, lines 51-55 and col. 4, lines 42-54, *Examiner interprets the*

iterative use of the "function of a preceding response" to produce a set of biased

random values for each response for each "subsequent question" (query) in each

branch of the tree created by the simulator to be querying at least one database (see

col. 4, lines 3-8, *"statistical base") to generate at least one secondary bias value that*

is based on the corresponding primary bias value and the response to the query.),

wherein each secondary bias value is associated with a particular alternative medical

diagnosis of the set of alternative medical diagnoses (*see* above, *Examiner interprets*

"each branch of the tree created by the simulator" to be a set of alternative diagnoses

for a particular alternative diagnosis alternative.), and reflects the expert prior

conception of the degree of predictive value of the query and response for the

particular alternative medical diagnosis alternative relative to others (*see* col. 3, lines

51-55 and col. 4, lines 42-54, *Examiner interprets "The chi square test is used to*

determine whether a given variable is significant in the expert's choice of responses to

the questions..." to mean that a given variable including a bias value reflects, by its

significance, the expert's prior conception of the degree of predictive value of the

query and response for the particular alternative medical diagnosis.), and wherein

ranking is based. at least in part, on the secondary bias values, or at least in part on a

combination of the primary and secondary bias values (*see* col. 10, lines 3-12, *Examiner*

interprets "recommendations" to be alternative medical diagnoses and "the modal

path" to be path through the decision tree with the highest relative likelihood, based at

least in part on the set of primary bias values (i.e., input parameters).).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as
> set forth in section 102 of this title, if the differences between the subject matter sought to be
> patented and the prior art are such that the subject matter as a whole would have been obvious at
> the time the invention was made to a person having ordinary skill in the art to which said subject
> matter pertains. Patentability shall not be negatived by the manner in which the invention was
> made.

11. Claims 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Altschuler et al. `122* in view of *Altschuler et al. `052 (USPN 6,012,052).

Regarding claim 15. *Altschuler et al. `122* teach a computer implemented method for

providing a medical diagnosis to a user (*see* col. 7, lines 3-21, *Examiner interprets "the*

expert's response" to be a diagnosis and in the case "where the system will be able to

decide a presented case without full information" it will present "the expert's

response" to a user (e.g., a patient).), comprising:

(a) configuring, in one or a plurality of electronic databases of a server, a set of

alternative <u>medical</u> diagnoses *(see* col. 4, lines 3-8, *Examiner interprets*

"statistical base" one or a plurality of electronic databases.), a query set

comprising at least one query *(see* Abstract, *Examiner interprets "A plurality of*

structures may be established, one for each individual expert, allowing

interrogation of any or all of the decision making structures..." to be a query

set comprising at least one query ("interrogation").), and a set of primary bias

values *(see* Abstract, "Random values of the input parameters are generated,

which includes biasing the random values by a function of a preceding

response.", *Examiner interprets the "function of a preceding response" to map*

a preceeding response to a bias value and the primary bias values to be those

included in random "values of the input parameters".), wherein the set of

primary bias values comprises, with respect to each query, a corresponding set of

alternative <u>medical</u> diagnosis-specific primary bias values each directly

associating the particular query with each respective alternative medical diagnosis

(see col. 5, lines 53-62, *Examiner interprets "interrogation or questioning of the*

system by the user" to use "a case" having a set of "experts whose system has

been made public" (see above) to associate queries in the expert analysis trees

with "the preference of the expert...affected by variations of one of the input

parameters" (which are primary biased values).), and each primary bias value

directly reflecting at least one human expert's prior conception of the degree of

predictive value of the query for the particular alternative medical <u>diagnosis</u>

relative to others (*see* above, *Examiner interprets "expert" to be a human*

medical expert.);

(b) inputting a user's response to the <u>at least one</u> query into a computer through

a user subsystem (*see* col. 7, lines 62-63, *Examiner interprets "display of block*

52 to be a software subsystem.) to provide for at least one respective response

value (*see* col. 5, lines 53-62, *Examiner interprets "significant parameters" to be*

response values to at least one query.); and

(d) ranking, using a software program stored on the storage device that is

operative with a processor of the computer to receive and process the user's

response (*see* col. 10, lines 3-12, *Examiner interprets "recommendations" to be*

alternative diagnoses and "the modal path" to be path through the decision tree

with the highest_relative likelihood, based at least in part on the set of primary

bias values (i.e., input parameters).), the alternative <u>medical</u> diagnoses according

to relative likelihood, based at least in part on the <u>product of the at least one</u>

<u>response value and the respective medical diagnosis-specific</u> primary bias values

to provide a medical diagnosis comprising a ranked set of alternative medical

diagnoses (*Examiner interprets "action probabilities...arranged in the order of*

descending probabilities" to be a ranking for the set of alternative medical

diagnoses according to relative likelihood based, at least in part, on the set of

primary bias values (input parameters).).

Altschuler et al. `122 do not teach the method over a wide-area network, comprising:

> (c) transmitting the user's at least one response to the server over the wide-area
>
> network; and

However, *Altschuler et al.* `052 do teach the method over a wide-area network (*see* Fig.

5 and col. 30, lines 1-7, *Examiner interprets item 506 to be a wide-area network.*),

comprising:

> (c) transmitting the user's at least one response to the server over the wide-area
>
> network (*see* above, *Examiner interprets "forwarded" to mean transmitted over*
>
> *the wide-area network.*).

It would have been obvious at the time the invention was made to persons having

ordinary skill in the art to combine *Altschuler et al.* `122 with *Altschuler et al.* `052 to

obtain methods and apparatus for using resource pre-fetching to better utilize processing

resources and bandwidth of communications channels.

Regarding claim 16. (Currently amended) *Altschuler et al.* `122 teach the method of

claim 15, wherein ranking the alternative <u>medical</u> diagnoses alternatives further

comprises querying the one or more electronic databases of the server to generate at least

one secondary bias value that is based on the corresponding primary bias value and the

response to the query (*see* Abstract and col. 3, lines 51-55 and col. 4, lines 42-54,

Examiner interprets the iterative use of the "function of a preceding response" to

produce a set of biased random values for each response for each "subsequent

question" (query) in each branch of the tree created by the simulator to be querying at

least one database (see col. 4, lines 3-8, *"statistical base") to generate at least one*

secondary bias value that is based on the corresponding primary bias value and the

response to the query.), wherein each secondary bias value is associated with a particular

alternative <u>medical</u> diagnoses of the set of alternative <u>medical</u> diagnoses (*see* above,

Examiner interprets "each branch of the tree created by the simulator" to be a set of

alternative diagnoses for a particular alternative diagnosis alternative.), and reflects the

expert prior conception of the degree of predictive value of the query for the particular

alternative <u>medical</u> diagnoses alternatives relative to others (*see* col. 3, lines 51-55 and

col. 4, lines 42-54, *Examiner interprets "The chi square test is used to determine*

whether a given variable is significant in the expert's choice of responses to the

questions..." to mean that a given variable including a bias value reflects, by its

significance, the expert's prior conception of the degree of predictive value of the query

and response for the particular alternative medical diagnosis.), and wherein ranking is

based, at least in part, on the secondary bias values, or at least in part on a combination of

the primary and secondary bias values (*see* col. 10, lines 3-12, *Examiner interprets*

"recommendations" to be alternative diagnoses and "the modal path" to be path

through the decision tree with the highest relative likelihood, based at least in part on the

set of primary bias values (i.e., input parameters).).

Regarding claim 17. (Previously presented) *Altschuler et al. `122* teach the method

of claim 16, wherein generating the secondary bias values involves increasing,

decreasing or conserving the corresponding primary bias values based on the

response to the query (*see* col. 3, lines 55-56, *Examiner interprets "the system*

avoids presenting variable values that are inconsistent with the answers previously

given" to mean generating the secondary bias values involves conserving the

corresponding primary bias values.).

Regarding claim 18. (Currently amended) *Altschuler et al.* `122 teach the method of

claim 16, wherein the query set comprises a plurality of queries, and wherein ranking

the alternative <u>medical</u> diagnoses alternatives involves summing and averaging of at

least one of primary and secondary bias values (*see* col. 11, 32-49, *Examiner*

interprets "variables (i,j)" to be one of primary or secondary bias values.).

12. Claims 21, 22, 23, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable

over *Altschuler et al.* `052 in view of *Altschuler et al.* `122.

Regarding claim 21. (Currently amended) *Altschuler et al.* `052 teach a computer

network apparatus (*see* col. 3, line 60 to col. 4, line 10), comprising: (a) a server having

a processor and at least one storage device connected to the processor (see col. 4, lines

32-41, *Examiner interprets "processing resources" to be a processor and "resource*

cache" to be at least one storage device connected to the processor.).

Altschuler et al. `052 do not teach providing a medical diagnosis to a user, comprising:

    (b) a database of alternatives, comprising a stored set of <u>alternative diagnoses</u>

    alternatives;

    (c) a database of queries, comprising a stored set of at least one query;

(d) a primary bias value database, comprising a stored set of primary bias values, wherein the set of primary bias values comprises, with respect to each query, a corresponding set of alternative diagnosis-specific primary bias values each directly associating the particular query with each respective alternative diagnosis, and each bias value directly reflecting reflects at least one human expert's prior conception of the degree of predictive value of the query for the particular alternative diagnosis relative to others; and

(e) a stored software program operative with the processor to receive and process, from a user subsystem, a user's response to the query, and to rank the alternative diagnoses alternatives according to relative likelihood based, at least in part, on the set of primary bias values, for transmission to the user subsystem.

Altschuler et al. `122 do teach providing a medical diagnosis to a user (*see* col. 7, lines 3-21, *Examiner interprets "the expert's response" to be a diagnosis and in the case "where the system will be able to decide a presented case without full information" it will present "the expert's response" to a user (e.g., a patient).*), comprising:

(b) a database of alternatives, comprising a stored set of alternative medical diagnoses (*see* col. 4, lines 3-8, *Examiner interprets "statistical base" one or a plurality of electronic databases.*);

(c) a database of queries, comprising a stored set of at least one query (*see* col. 5, lines 1-14, *Examiner interprets "Each of these experts would...build his own tree of analysis." to assert a set of analysis "trees". Examiner interprets the set*

of analysis trees to be a database of queries, comprising a stored set of at least

one query);

(d) a primary bias value database, comprising a stored set of primary bias values

(*see* Abstract, "Random values of the input parameters are generated, which

includes biasing the random values by a function of a preceding response.",

Examiner interprets the "function of a preceding response" to map a preceeding

response to a bias value and the primary bias values to be those included in

random "values of the input parameters".), wherein the set of primary bias

values comprises, with respect to each query, a corresponding set of alternative

medical diagnosis-specific primary bias values each directly associating the

particular query with each respective alternative medical diagnosis (*see* Abstract

and col. 3, lines 51-55 and col. 4, lines 42-54, *Examiner interprets the iterative*

use of the "function of a preceding response" to produce a set of biased random

values for each response for each "subsequent question" (query) in each branch

of the tree created by the simulator, thus associating a particular query with

each respective alternative "response" (diagnosis).), and each bias value

directly reflecting_reflects at least one human expert's prior conception of the

degree of predictive value of the query for the particular alternative medical

diagnosis relative to others (*see* col. 3, lines 51-55 and col. 4, lines 42-54,

Examiner interprets "The chi square test is used to determine whether a given

variable is significant in the expert's choice of responses to the questions..." to

mean that a given variable including a bias value reflects, by its significance, at

least one human expert's prior conception of the degree of predictive value of the

query for the particular alternative medical diagnosis relative to others.); and

(e) a stored software program operative with the processor to receive and process,

from a user subsystem, a user's response to the query, to provide for a response

value to the at least one query (*see* col. 5, lines 53-62, *Examiner interprets*

"significant parameters" to be response values to at least one query.), and to rank

the alternative <u>medical</u> diagnoses according to relative likelihood based, at least

in part, on the product of the at least one response values and the respective

medical diagnosis-specific primary bias values, for transmission to the user

subsystem (*see* col. 10, lines 3-12, *Examiner interprets "recommendations" to*

be alternative medical diagnoses and "the modal path" to be path through the

decision tree with the highest relative likelihood, based at least in part on the

respective medical diagnosis-specific primary bias values (i.e., input

parameters).).

It would have been obvious at the time the invention was made to persons having

ordinary skill in the art to combine *Altschuler et al. '052* with *Altschuler et al. '122* to a

decision making structure that may be interrogated by entering a situation to be analyzed.

A path an expert would take through the decision making structure is predicted by

determining the probability of the expert's response at each node in the structure to arrive

at an output action. A plurality of structures may be established, one for each individual

expert, allowing interrogation of any or all of the decision making structures.

Regarding claim 25, *Altschuler et al.* '052 do not teach: ranking the set of alternative medical diagnoses further-comprises querying at least one database to generate at least one secondary bias value that is based on the corresponding primary bias value and the response to the query, wherein each secondary bias value is associated with a particular alternative medical diagnosis of the set of alternative medical diagnoses, and reflects the expert prior conception of the degree of predictive value of the query and response for the particular <u>alternative</u> <u>diagnosis</u> alternative relative to others, and wherein ranking is based, at least in part, on the secondary bias values, or at least in part on a combination of the primary and secondary bias values.

However, *Altschuler et al.* '122 do teach: ranking the set of alternative medical diagnoses further-comprises querying at least one database to generate at least one secondary bias value that is based on the corresponding primary bias value and the response to the query (*see* Abstract and col. 3, lines 51-55 and col. 4, lines 42-54, *Examiner interprets the iterative use of the "function of a preceding response" to produce a set of biased random values for each response for each "subsequent question" (query) in each branch of the tree created by the simulator to be querying at least one database (see col. 4, lines 3-8, "statistical base") to generate at least one secondary bias value that is based on the corresponding primary bias value and the response to the query.*), wherein each secondary bias value is associated with a particular alternative <u>medical</u> diagnosis of the set of alternative <u>medical</u> diagnoses (*see above, Examiner interprets "each branch of the tree created by the simulator" to be a set of alternative medical diagnoses for a particular alternative diagnosis alternative.*),

and reflects the expert prior conception of the degree of predictive value of the query

and response for the particular alternative medical diagnosis relative to others (*see* col.

3, lines 51-55 and col. 4, lines 42-54, *Examiner interprets "The chi square test is used*

to determine whether a given variable is significant in the expert's choice of responses

to the questions..." to mean that a given variable including a bias value reflects, by its

significance, the expert's prior conception of the degree of predictive value of the

query and response for the particular alternative medical diagnosis.), and wherein

ranking is based, at least in part, on the secondary bias values, or at least in part on a

combination of the primary and secondary bias values (*see* col. 10, lines 3-12, *Examiner*

interprets "recommendations" to be alternative diagnoses and "the modal path" to be

path through the decision tree with the highest relative likelihood, based at least in

part on the set of primary bias values (i.e., input parameters).).

It would have been obvious at the time the invention was made to persons having

ordinary skill in the art to combine *Altschuler et al. '052* with *Altschuler et al. '122* to a

decision making structure that may be interrogated by entering a situation to be analyzed.

A path an expert would take through the decision making structure is predicted by

determining the probability of the expert's response at each node in the structure to arrive

at an output action. A plurality of structures may be established, one for each individual

expert, allowing interrogation of any or all of the decision making structures.

Regarding claim 22. (Previously presented) *Altschuler et al. '052* teach the apparatus of

claim 21, further comprising a user database, comprising user information (*see* Fig. 1,

item 142 and col. 9, lines 18-25, *Examiner interprets "usage trace data record 142*

includes user information (which may correspond to the user ID data 106...)" to

comprise a user database, comprising user information.), wherein the program is

operative with the processor (*see* col. 18, lines 6-20, *Examiner interprets "program*

instructions for implementing at least a portion of the process of the present invention"

to be the program is operative with the processor to store, access and update user

information when new user information is received.) to store, access and update user

information when new user information is received (*see* col. 8, lines 10-48, *Examiner*

interprets "Each of the distributed servers of the Internet site will generate a usage log

102. Alternatively, a centralized usage log may be compiled based on usage

information from the distributed servers. A usage log 102 will include records 104

which include information of a user (or client)..." to mean the program is operative

with the processor to store, access and update user information when new user

information is received.).

Regarding claim 23. (Previously presented) *Altschuler et al. '052* teach the apparatus

of claim 21, wherein the program is further operative with the processor to track the

user information (*see* col. 19, lines 14-23, *Examiner interprets "logging usage" to*

mean tracking user (usage) information.).

Allowable Subject Matter

13. Claims 27 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
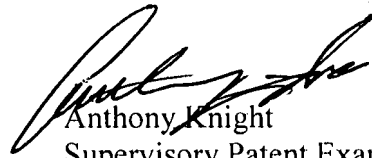
Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Correspondence Information

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Nathan H. Brown, Jr. whose telephone number is 571-

272- 8632. The examiner can normally be reached on M-F 0830-1700. If attempts to

reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony

Knight can be reached on 571-272-3687. The fax phone number for the organization

where this application or proceeding is assigned is 703-872-9306. Information regarding

the status of an application may be obtained from the Patent Application Information

Retrieval (PAIR) system. Status information for published applications may be obtained

from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the

PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the

Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197

(toll-free).

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Nathan H. Brown, Jr.
September 2, 2007